

**CONDUCTIVE FLUID GROUND PLANE**  
**ABSTRACT OF THE INVENTION**

5      The invention concerns an antenna system (100) with dynamically adjustable ground plane spacing. The system includes at least one antenna radiating element (106, 108) and a first conductive ground plane (110, 120) spaced from radiating element (106, 108). The first conductive ground plane is comprised of a dielectric structure (104) containing a conductive fluid (120).